

New Jersey Coastal Management Program

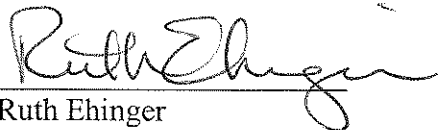
**Developing a Stakeholder Framework and Decision Support Tools for
Coastal and Marine Spatial Planning**

Proposal for the 2011 Coastal Management Fellowship

NOAA Coastal Services Center

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Submitted By:

A handwritten signature in black ink, appearing to read 'Ruth Ehinger', written over a horizontal line.

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Introduction

Coastal and Marine Spatial Planning (CMSP) is a comprehensive, integrated, science and ecosystem-based approach to address conservation, economic activity and sustainable use of ocean and coastal resources. New Jersey began work in this area by developing an ocean atlas in 2004; gathering data on offshore biological resources through an offshore baseline study from January 2008 through December 2009; and participating via the Mid-Atlantic Regional Council on the Ocean (MARCO) in development of a Mid-Atlantic GIS portal to host and provide access to regional offshore data. Coincident with the development of a coastal and marine spatial plan for New Jersey's ocean waters, New Jersey will continue to work with MARCO to advance regional issues.

This fellowship project proposes developing New Jersey's stakeholder framework and decision support tools as key components of New Jersey's CMSP efforts. The major elements of CMSP are determining how the state can most effectively advance its environmental and economic interests through the growth of sustainable and productive ocean uses and preserving and restoring these ecosystems. Strategic stakeholder involvement and close coordination with regional bodies and state and local government will be key to advancing these priority objectives. These efforts will advance the recommendations of the Interagency Ocean Policy Task Force, adopted by the 2010 Federal Executive Order on Stewardship of the Ocean, Coasts, and the Great Lakes. This Executive Order establishes a National Policy on stewardship of the ocean, coasts, and the Great Lakes and sets forth recommendations for the implementation strategy including nine national priorities for action. The Executive Order also provides a framework for CMSP. As part of the New Jersey Coastal Management Program Assessment and Enhancement Strategy, FY 2011 - 2015, submitted to NOAA in accordance with Section 309 of the Coastal Zone Management Act, the New Jersey Office of Coastal Management proposed to address recommendations emerging from the work New Jersey has accomplished to date and the Executive Order within the Ocean Resources enhancement area.

Background

New Jersey's coastal and ocean environment is both dynamic and highly utilized. Living marine resources support important recreational and commercial fisheries in New Jersey. They help support a tourism industry worth \$16 billion, and generate recreational and commercial fish revenues of about \$2 billion (<http://www.state.nj.us/dep/fgw/marhome.htm>, accessed 10/19/2010). New Jersey is home to six major commercial fishing ports in both the north and the south regions of the state. It is also home to two large shipping ports, with the Port of New York and New Jersey the largest port on the East Coast and the third-largest in the nation and the Port of Camden specializing in breakbulk and bulk cargo. The State's economy is heavily dependent on tourism, particularly in the oceanfront communities. Over the past several years there has been an increased demand to utilize the ocean environment for alternative energy such as wind turbines and as well as for conventional energy sources, such as oil and gas and LNG ports. These new demands on coastal and marine uses and resources, coupled with the need for better

management of existing uses and resources, makes it clear that in order for New Jersey to realize its economic potential while also protecting and enhancing its resources, New Jersey must focus attention on proactive planning efforts to further ocean resources management. This will include the development of a coastal and marine spatial plan for the area offshore of New Jersey, continuation of efforts with MARCO and coordination with federal agencies to advance regional CMSP and the framework set forth by the Ocean Policy Task Force.

New Jersey's 2010 309 Ocean Resources enhancement area Strategy will involve development of a coastal marine spatial plan. The components of the Strategy include defining State objectives, identifying existing data and data gaps in consultation with experts, cataloging past and on-going efforts that will help shape the plan, and engaging key stakeholders. The Office of Coastal Management anticipates working with the other MARCO states to develop and implement a framework for meaningful stakeholder engagement to ensure that stakeholders' concerns and ideas are considered in the development of the coastal and marine spatial plan.

Implementation of the 309 Ocean Resources Strategy, the New Jersey coastal and marine spatial plan, will require substantial changes to the State's Coastal Management Program over the next five years. The changes may include the implementation of new policies and amendments to or new regulations. The strategy calls for research and develop of a methodology to engage stakeholders and the scientific community in CMSP and a means to make open, transparent decisions based on the best available information. New Jersey has made a substantial investment in conducting Offshore Ecological Baseline studies and in collaborating with Mid-Atlantic States to create and develop MARCO and its objectives and action plans. One of the primary accomplishments of MARCO has been the development of a GIS Portal through which maps and data of Mid-Atlantic ocean resources can be viewed and shared. The development of the NJ coastal and marine spatial plan will require the utilization of the work completed to date on these products and processes. The Office of Coastal Management intends to build on the Offshore Ecological Baseline studies and the results of the MARCO action items as well as on additional existing partnerships to inform science-based policy and management decisions and to develop a coastal and marine spatial plan. It is anticipated that federal, state and local government planning agencies will be able to use the plan to make more informed management decisions. New Jersey desires to seek input from stakeholders on local and state concerns, as well as on regional concerns and issues. As an outgrowth of New Jersey's 309 Ocean Resources Strategy, New Jersey's Office of Coastal Management is proposing to engage a fellow in its efforts to initiate the tasks necessary for CMSP and to meet the long term goals and objectives of ocean management. The Office of Coastal Management will continue working with the other MARCO states to develop new and/or enhanced decision support tools for application on the MARCO GIS Portal. The fellowship project would develop the means for accomplishing both of these goals.

Reaching consensus among varied stakeholders and members of the scientific community can be difficult. New Jersey needs tools that provide for consideration of various economic, social and ecological values in developing a coastal and marine spatial plan. Accordingly, there is a need to develop decision support tools to evaluate multiple uses and resource management issues. Such tools must be effectual even when qualitative and quantitative data may not be directly comparable, where data may not be fully available, or when the collection of new data cannot be achieved in a cost effective or timely manner. The fellow shall examine multiuse management strategies, including those beyond ocean management, that deal with complex multi-user conflicts and resource management, as a basis for developing such tools for New Jersey's CMSP.

Goals and Objectives

Goal 1: A robust, strategic and meaningful stakeholder process for coastal and marine spatial planning for waters offshore of New Jersey.

Objectives:

- a. Identify which stakeholders should be involved, when in the process they should be involved and how they should be involved
- b. Engage stakeholders in New Jersey's coastal and marine spatial planning.

Goal 2: Effective participation of the scientific community in coastal and marine spatial planning for waters offshore of New Jersey.

Objectives:

- a. Determine what expertise is needed and develop a list of members of the scientific community with such expertise.
- b. Engage the scientific community in coastal and marine spatial planning.

Goal 3: Appropriate, practical and useful coastal and marine spatial decision support tools for use in coastal and marine spatial planning for waters offshore of New Jersey.

Objectives:

- a. Evaluate existing decision support tools
- b. Create New Jersey specific decision support tools that utilize the input from stakeholders, the scientific community, and managers in addressing multi-use conflicts and resource management necessary to CMSP process
- c. Assess the effectiveness of the tools, using demonstration exercises for a defined area and set of uses with a selected stakeholders and scientific community members

Project Description

The fellowship project will have two primary components. The first component will be the development of related and closely coordinated participatory processes for CMSP, one for stakeholders and one specifically for the scientific community. The second component will be the development of decision support tools for CMSP.

The first step for the fellow will be to create a CMSP participatory process that will facilitate the exchange of ideas and data sharing among critical stakeholder groups, allowing for the direct involvement of experts, interest groups and stakeholders in developing New Jersey's coastal and marine spatial plan.

As outlined in the Final Recommendation of the Interagency Ocean Policy Taskforce:

Public and stakeholder engagement

In addition to coordination and cooperation among all levels of government, robust public and stakeholder engagement is integral to a successful CMSP process. Given the multi-objective nature of CMSP it is critical to ensure there are numerous opportunities for a broad range of input to gain a better understanding of the human uses and influences on the planning area, and expectations, interests, and requirements for the future. Including a broad range of interests throughout the planning and implementation of CMSP is necessary to strengthen mutual and

shared understanding about relevant problems and opportunities and will better inform the process and its outcomes.

UNESCO's *Marine Spatial Planning: A Step-by-Step Approach*, (UNESCO IOC, 2009) outlines the initial steps of the stakeholder process such as identifying who should be involved, when in the process they should be involved and how they should be involved. The fellow will follow these steps, first identifying critical groups for stakeholder participation and secondly developing a framework describing how and when the stakeholders will be involved. The framework developed will provide for meaningful and strategic stakeholder engagement to ensure concerns and ideas are considered. The fellow will design a public participation process to seek input from stakeholders on local concerns, as well as issues that are regional in nature and are best integrated within a regional framework due to factors such as economies of scale and shared regional resources. Potential stakeholders include representatives of commercial and recreational fishing interests, environmental groups and energy industry representatives.

Using a similar process, the fellow will also design a framework for directly involving the scientific community. The participation process for the scientific community will be established to assist in identifying the existing information and data, data gaps, best analytical techniques to integrate and utilize existing data in CMSP. The scientific community will also help select the best means to develop consensus; consider cumulative impacts; and determine how to make decisions in light of data gaps. The group would include scientists with expertise in marine ecology, oceanography, fisheries management, socio-economics, and geospatial planning.

It is anticipated that the processes developed shall be robust enough to be used by other states and the region to guide CMSP development. The processes developed by the fellow will be coordinated with and incorporated into the development of decision support tools to ensure these communities are engaged in the development of these tools.

The fellow will be charged with reviewing and evaluating existing information on CMSP and analytical tools for decision support. The fellow will investigate existing CMSP decision support tools as well as approaches that have been used in other environments to make management decisions where competing interests exist or where data are lacking. Currently there are a number of organizations developing decision support software tools to aid in the CMSP process; creating tools to evaluate cumulative impacts of human uses; and formulating approaches to assess conflicts and compatibilities between human uses and ecosystem health. Approaches to be examined include NOAA's Integrated Assessment protocols; participatory modeling approaches such as NOAA CSC's Participatory Mapping; the Tortugas Ecological Reserve design (Delaney, 2003); and multi-criteria analysis or multi-criteria decision making.

Based on this work, and with continued stakeholder and scientific community engagement, the fellow will develop methodologies for CMSP decision-making specific to NJ. These methodologies will take into account available data, data gaps, input from stakeholders, expert opinion, and best approaches to managing use conflicts. The goal of the work is to develop a method to engage stakeholders and the scientific community in considering how specific uses would impact different components of the three-dimensional space offshore, such as the sea floor and the water or air columns. It is anticipated that the scientific community can assist the fellow and the Office of Coastal Management determine the best analytical techniques to integrate and utilize existing data in CMSP, select the best means to develop consensus, and consider

cumulative impacts. The end product envisioned is the creation of a sound and effective process for CMSP that includes promotion of multiple sustainable uses, sustainability of ecosystem functions and service, and determination of constraints to ocean uses, such as siting energy facilities, based on physical, ecological, economic and social factors. The methodologies developed will include consideration of how to utilize these constraints to inform the use of decision tools to take into account different environmental and social criteria.

Milestones and Outcomes

Timeframe	Milestone and Outcomes
Late Summer 2011	Orientation to NJ State Government, the project, colleagues, and partners
Fall- Winter 2011	Strategic Stakeholder Participatory Process Developed
Late Winter and ongoing* 2012	Stakeholders Identified and Participatory Process Initiated
Spring and ongoing* 2012	Scientific Community Participatory Process Developed and Initiated
Summer 2012	Analysis of Results of Input from the Preliminary Participatory Processes Completed
Fall-Winter 2012	Analysis and Evaluation of Existing Decision Support Tools Completed
Winter-Spring 2013	NJ Specific Decision Support Tool(s) Created
Summer 2013	NJ Specific Decision Support Tool Demonstration Exercises Conducted

* The stakeholder and scientific community participatory process will continue throughout the Fellowship Project as the existing decision support tools are evaluated and the NJ specific tool is created and piloted.

Fellow Mentoring

The fellow will be directly supervised by the Coastal Program Manager but will function on a daily basis as part of a planning team of professionals within the Office of Coastal Management. The planning team consists of:

- Ruth Ehinger, Coastal Program Manager
- Dorina Frizzera, Environmental Scientist I
- Kim Springer, Supervising Environmental Specialist
- Tali MacArthur, Research Scientist
- Kevin Hassell, Senior Environmental Specialist
- Ann Marie Hoagland, support staff

This team has many years of experience in coastal resource management and program administration. The fellow will be integrally involved in all aspects of the Office of Coastal Management's activities, interacting on a regular basis with staff throughout the Department, including individuals representing the regulatory, natural resources, and science and research programs.

The NOAA fellow will be based in Trenton, New Jersey, although fieldwork will be necessary for the Project's full implementation. The Office of Coastal Management is located within the Department's Land Use Management program and reports directly to the Assistant Commissioner for Land Use Management. The fellow will be assimilated as a member of the Office of Coastal Management and be provided with administrative, clerical and technical support. Opportunities for attendance at the Department's workshops, meetings and training sessions will be provided as personal /professional development in addition to the training opportunities provided by CSC as part of the fellowship. The fellow will also receive computer/technical support as needed and will have access to all soft and hardware necessary for the successful completion of the Project

This project will provide the fellow with the opportunity to work with professionals in the planning, regulatory and natural resource management fields of a state agency closely linked with federal, state and local partners. The fellow will have the unique experience of being involved with developing a process that will impact public policy at the State, regional and federal level. CMSP is a new federal initiative, and the fellow will have the opportunity to work on this cutting-edge coastal policy initiative and play a critical role in defining how it will apply to New Jersey and the MARCO states. This fellowship will provide the fellow the opportunity to work closely with the Mid-Atlantic states as CMSP develops on a regional and national level.

Project Partners

The Commissioner of the New Jersey Department of Environmental Protection recently released priorities for the Department, one of which calls for "optimal stewardship of the Atlantic ocean, its beaches and tributaries." This commitment to ocean stewardship is significant to the success of these efforts. The Office of Coastal Management works closely with other groups within New Jersey's Department of Environmental Protection, such as the Office of Science, the Endangered and Non-game Species Program, the Division of Land Use Regulation, and Marine Fisheries Program to help develop initiatives such as the Offshore Ecological Baseline Studies, as well as new rules regarding wind turbine development. The Office of Coastal Management has also coordinated closely with federal agencies, such as the Bureau of Ocean Energy Management, Regulation and Enforcement, the United States Coast Guard, and the United States Fish and Wildlife Service on the baseline studies as well as offshore wind turbine development and coordinating review of deepwater liquefied natural gas ports. The New Jersey Coastal Program Manager directs the Office of Coastal Management and is a member of the management board of MARCO, and Office of Coastal Management staff participates in MARCO activities on a daily basis. The fellow will have the opportunity to work directly with other MARCO state representatives as part of this ongoing effort.

In response to the pressing issues identified and the high level of government commitment, a number of institutions and organizations have engaged in various ocean management and CMSP related research specific to New Jersey. These institutions include Rutgers University and the Urban Coast Institute at Monmouth University. Organizations include The Nature Conservancy, which has developed the Regional GIS Portal for MARCO, continues to work on the Northwest Atlantic Marine Ecoregional Assessment as part of its worldwide marine conservation initiative, and is now developing decision support tools that will be integrated into the MARCO Portal. Continued involvement of these entities is anticipated.

Cost Share Description

As noted, the fellow will be a member of the CMO staff and project team. The fellow will be provided with administrative, technical and clerical support. The fellow will be provided with a current Department-standard computer, standard and technical software, and communications equipment. Access to the Department's library, GIS data, and training opportunities will also be provided. While the NJCMP receives federal funding through the federal CZM Grant for personnel and operating expenses, a non-federal match is required. This match is provided through State appropriations and through the Corporate Business Tax. These funds are directed to implementation of the Department's watershed initiative and to implementation of coastal programming and land use management. The level of State funding far exceeds the required match for federal CZM awards. These non-federal State funds will also be directed to meet the cost share match in support of the fellow.

Strategic Focus Area

The Coastal Management Fellowship Project will address the Strategic Focus Area of "Competing Uses," focusing on the marine spatial planning process. The fellow will develop stakeholder/scientific engagement processes and a decision support tool(s) that result in improved management of ocean resources. The fellow's work products will be instrumental in advancing the growing state and national interest in comprehensive ocean resource management. The fellow will develop a working knowledge of ecosystem-based management principles involved in addressing environmental, social, economic and culturally relevant management strategies. The project will provide valuable outreach and communication between federal, State, and local officials and various stakeholders, improve knowledge of multi-use planning concepts, and provide support for improved ocean stewardship by New Jersey and the region.